Amendments To the Abstract:

In the English translation document, please add the section heading at page 10 line 1, as follows:

--ABSTRACT--

In the English translation document, please add the paragraph at page 10 line 1, after the newly added ABSTRACT section heading, as follows:

Redundant systems are often provided with identically mounted processor boards which function according to a lockstep operation. The basic condition for the implementation of a lockstep system is the deterministic behaviour of all of the constituents contained in the board, such as CPUs, chip sets, main memory etc. According to the invention, deterministic behaviour signifies that said constituents supply identical results at identical times, in an error-free case, when the constituents receive identical stimuli at identical times. Deterministic behaviour also presupposes the use of interfaces in clock-controlled synchronism. Asynchronous interfaces cause a certain temporal indeterminacy in the system in many cases, whereby the entire synchronised behaviour of the system cannot be maintained. In order to thus be able to carry out a lockstep operation, the invention relates to a method for the synchronisation of external events which are supplied to a processor (CPU) and influence the same. The external events are intermediately stored accordingly and the processors are presented at identical points in the execution of commands. Problems which are created by the capacity of modern processors to execute commands in parallel are avoided by the fact that the parallel execution of the processors is stopped before the desired point in the command execution is reached and said point is then reached exactly in the single step mode.